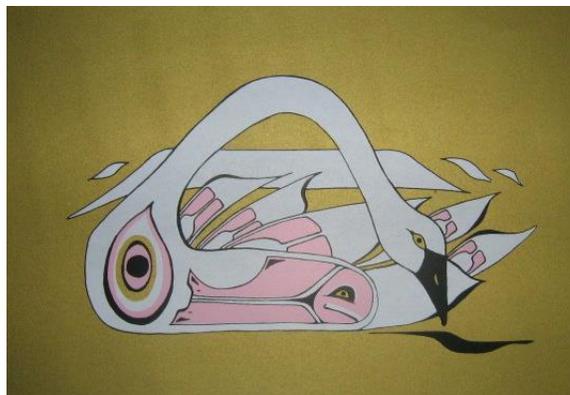


# Comox Valley Naturalists Society

March 2018 Newsletter



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## President's Corner

### Is Monoculture Worth It?

By Jim Boulter

A while back I was reading Rowan Jacobsen's *Fruitless Fall: The Collapse of the Honey Bee and the Coming Agricultural Crisis*. This 2008 book's title pays homage to Rachel Carson's *Silent Spring* (1962), and has similarly dire warnings. While the ongoing saga of Colony Collapse Disorder (CCD) appears to be a complex of issues, I was surprised to see monoculture listed as one of them.<sup>1</sup>

CCD is not caused by a single pathogen, but affected 42% of the hives in the U.S. in 2015.<sup>2</sup> Speculation is that the current practice of moving the hives around to fertilize crops like the almond industry in California, stresses the bees in at least two ways. First, there is the move itself, which seems to disorient them as much as it does us. Second, the bees are provided only one crop to feed off, and their protein sources are not varied enough to maintain good health. With poor health comes disease.

Monoculture is often referred to as an agricultural practice, but it is more an economic principle applied to

industrial farming. Like the development of assembly-line industries, monoculture seeks to increase profits for industry by reducing the cost of labour through mechanization, more predictable crop yields, and quicker harvest time through cloning of the organisms. Higher productivity can be achieved as the crop can be chosen for the specific climate, soil type and moisture. The economy of scale prevails here, but we are talking about living organisms, not nails or cars. Unfortunately for the rest of us, that is a recipe for disaster.

Monoculture often results in mono-cropping, the practice of raising the same crop in the same area year after year. This results in a buildup of diseases and pests, and the pathogen load increases until the crop is overwhelmed. The classic example of this is the "European potato failure", also known as the Irish potato famine. One variety of potato, the "lumper," was vegetatively planted using tuber cuttings, resulting in a mono-crop of cloned plants. In 1845, the water mold *Phytophthora infestans* arrived from the Americas and the potato clones had no resistance to it, and massive crop failures resulted. It is estimated that in Ireland alone one million people died and two million became refugees.<sup>3</sup> Estimates of the dead on the island range from 20 to 25%, which makes it percentage-wise more deadly than the flu pandemic of 1918 to 1920, when 50 to 100 million died, or about 5 to 10% of the world's population.

Many of today's crops, both plant and animal, are being set up for a similar fall. Livestock production, for example, relies on a handful of specialized breeds. In the 1990s, a few Holstein cattle were dying in their first 6 months. Scientists found they all had a mutated gene causing Bovine Leukocyte Adhesion Deficiency, which is now known to affect upwards of 15% of U.S. bulls. Pedigrees of the affected animals point to a single bull widely used to breed cows. The U.S. has about 4 million Holsteins, or about 600,000 affected animals.

Of course, industry believes that if technology caused the problem, technology can solve it, so in steps Monsanto. A brilliant, if devious marketing strategy indeed. Create clones of high profit crops that are resistant to their own herbicide, glyphosate, and you get two corners on the market. Sell the seed and the herbicide. But what happens if those golden fields encounter a pathogen that runs through them like the potato famine?

Industrial agriculture is driven by profit, and shares a few characteristics with the slash and burn land destruction in the Amazon rainforest. Only a small amount of the nutrition resides in the soil.<sup>4</sup> A lot of the key elements, minerals and compounds are in the living organisms, and the cycle runs from the soil to the plants and back to the soil. If the land is subjected to removal of the plants, say in a clear-cut, the soil becomes depleted. Statistics Canada reports that commercial fertilizers on Canadian farms cost an average of 8.4% of total farm expenses, with Saskatchewan leading with 15.1%.<sup>5</sup> No surprise that the main crops in Saskatchewan<sup>6</sup> are canola, spring wheat and lentils, and that large farms increased by 45% from 2001 to 2011, while small farms decreased by 21.6% in the same time frame.

Our food is subjected to massive amounts of insecticides (back to the bees again), pesticides, fungicides, and antibiotics. This is agriculture as a subsidiary of the chemical industry.

One answer is diversity of crops over time (crop rotation) and poly-cropping, the old market gardening method. Tomatoes here, carrots there. This provides a better balance between taking from the soil and giving back to the soil. Anyone who has grown any kind of plants outside knows that the health of the plant starts with healthy soil. Monocultures with single plant stock over large areas cannot provide that return to the soil, and in the end, the ground becomes no better than a sterile rooting medium, with hydroponic delivery of water and nutrients by industry.

Diversity leads to resilience, but agri-business does not look at the long-term effects of anything, as their focus is only to the next quarter. Viewing life through a set of 3-month glasses may be good for the industrialists and the bankers, but the profits are taken directly from the world around us. Natural methods of keeping the soil alive are possible, but require willing hands and would cut into profits. Growing 100 different varieties of tomatoes may be a great dream, but only a few have skins tough enough to withstand mechanical harvesting.

U.S. agricultural policy subsidizes large segments of agribusiness, especially grain crops. Due to these subsidies, 60% of the corn grown, and 47% of the soy grown in the U.S. are fed to livestock.<sup>7</sup> If the subsidies were removed, the cost of feed in industrial farming would increase by 7 to 10%. The animals gain weight quickly on these grains, but there is a downside. Cattle, for example, are ruminants which have evolved to forage on pasture land, not to live in a cubical hardly larger than their bodies and subsist on corn cobs and soy beans. This leads to a number of health issues, which industry responds to with antibiotics as a cover, rather than attacking the cause.

*Scientific American* in 2013 said that 40% of American corn is used to produce biofuels,<sup>8</sup> in effect feeding our cars, not ourselves. The major human consumption of corn is in high-fructose corn syrup, and most of us realize how bad this is for our diet. Corn, however, is the dominant mono-crop through much of the United States, or as stated in the article cited:

... the corn *crop* is highly productive, but the corn *system* is aligned to feed cars and animals instead of feeding people.

So, in the end, is monoculture worth it? I suppose if the “worth” part is measured in cash in the bank, it certainly is worth it for industry, but the earth suffers for it. We live in a closed system, and when one segment takes more than their share, another segment loses some of their share. Life has never been “fair,” but we can at least hope that it is balanced. And the only way to return some balance to this system is by voting with your household dollars. Shop the farmers markets and local producers. Know how your food gets on the table, and what the real cost is in its production. The end game of monoculture will be one species, us, feeding off algae and bacteria, with insects reserved for Thanksgiving dinners.

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1. <https://beependent.wordpress.com/disease/>

2. <http://www.resilience.org/stories/2015-05-26/honeybee-collapse-is-the-result-of-their-enslavement-in-industrial-monocultures/>

3. <http://en.wikipedia.org/wiki/EuropeanPotatoFailure>

4. <https://rainforests.mongabay.com/0502.htm>

5. <http://www.statcan.gc.ca/pub/96-325-x/2014001/article/13006-eng.htm>

6. <http://www.statcan.gc.ca/pub/95-640-x/2011001/p1/prov/prov-47-eng.htm>

7. <http://www.sustainabletable.org/260/animal-feed>

8. <https://www.scientificamerican.com/article/time-to-rethink-corn/>

## Indigenous Knowledge: A Paradigm for Conservation

By Sharon Niscak



Secwepemc basketry.

Photo: Sharon Niscak

An attempt to manipulate the environment in the agro-industrial model has negatively impacted ecosystems causing a decline of the number of species and led to the expiration of species that were once abundant. In the context of biodiversity conservation, the gaining of ecological knowledge based on a broad spectrum of experience accumulated through a long series of observations passed on through generations warrants attention. The current model of dissecting parts and categorizing research into specific disciplines has a tendency to omit critical components of ecological understanding.

Although not all indigenous peoples outside the industrial societies have lived in harmonious relationships with the environment, most indigenous societies practiced resource management in their own localities. When indigenous peoples depend upon their local environment for the basic necessities of food, shelter, technology and eco-cultural provisions there are strong incentives to preserve and enhance the ecological productivity within their territories. Enhancing the productivity within the framework of available resources depended upon observing the life cycles of the flora and fauna and deliberately modifying the environment or the growth patterns of target plants.

The various models of how the environment operates are intimately connected to “world view”.

In the western scientific model and deductive system, the integration of the economic, social and cultural systems

becomes fractured into “departmental” knowledge acquisition. In the indigenous system, beliefs, spiritual and cultural, and the ecological systems are tied together and become an integral part of indigenous knowledge. Music, songs and ceremonies support observation and are intimately connected to biodiversity conservation knowledge.

This body of knowledge is developed by observing nature and relating it to the collective experience gained over many lifetimes. Stories and songs become the seasonal calendar of knowledge such as the appearance of a migrating bird indicating that it is time to prepare or collect another species. For example, there is a relatively short window of time to harvest birch bark. At the right time the outer bark is loose and flexible. It unrolls from the trunk leaving the inner bark intact to protect the tree, allowing it to continue growing. Such timing applies to a variety of strategies used to increase berry production, enhance materials for basketry, and in estimating the arrival of migrating species.

Keen observation conducted over time and encoded in songs and ceremony is a time-honoured method of transferring knowledge between generations. The belief that “the Creator” placed people on the land “as caretakers” is in stark contrast to the present agro-industrial model that focuses on productivity and the commodities marketplace rather than a trade network based on fundamental principles. The struggle to reclaim the practices and spaces in marginalized communities is challenged by the research strategies that are focused on divergent methodology rarely applicable to cultural knowledge and the indigenous forms of communication.

For a fuller discussion of this topic, see [http://www.academia.edu/1243525/Indigenous\\_knowledge\\_agricultural\\_practices\\_and\\_food\\_security](http://www.academia.edu/1243525/Indigenous_knowledge_agricultural_practices_and_food_security).



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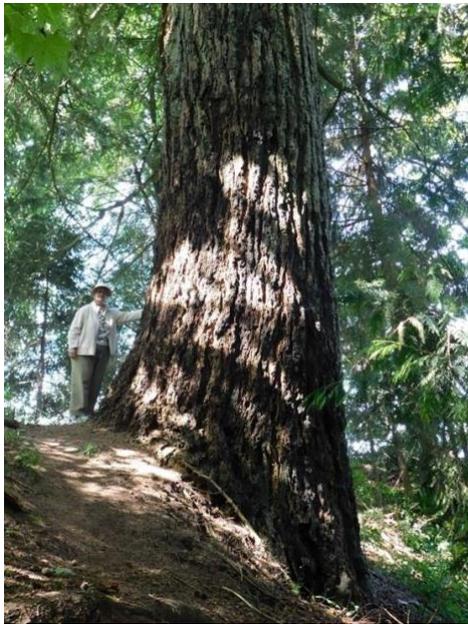
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# Susan Holvenstat Submits Winning Tree of the Year

*By Jim Boulter*

Comox Valley Nature would like to congratulate Susan Holvenstat on winning CVN’s first Tree of the Year Award. Susan won the award by nominating one of her favorite trees, a large Douglas fir on the bank of the Tsolum River near 3326 Dove Creek Road. Susan refers to it as ‘the Anchor Tree’ for its effect of stabilizing the river bank.

This Douglas fir is a fine example of the old growth forest that dominated the Valley prior to European settlement and is estimated to be about 300 years old. The top of the tree was lost sometime in the past, but it is still at least 28 metres high, with a trunk diameter of 245 cm. If you have a GPS the location is: 10U354527 5508823.



**2017 Tree of the Year: Tsolum River ‘Anchor tree’.**  
*Photo: Fred Newhouse*

The Tree of the Year Award started in the Czech Republic 16 years ago and has evolved into the European Tree of the Year Award, now covering the United Kingdom, Ireland, Poland, Bulgaria, Spain, Belgium, Estonia, Lithuania, Germany, and Slovakia. Last year’s ceremony took place in Brussels on March 21 which is the International Day of Forests.

The goals of the TOTY Award include raising awareness of old or memorable trees and encouraging citizens to take an active part in preserving the environment. The

main objective is to find the most beloved tree, not necessarily the most beautiful, largest, or oldest. Submitters are asked to provide some detail of why they selected a particular tree.

Although the Environmental Partnership Association oversees the official rules of the European award, our own members, Cathy Storey and Fred Newhouse, set up a simpler set of rules and scoring matrix for our award. The nominations had to be native to the Valley, and the submissions had to have a photo of the tree, its GPS or civic location, size, age, and species. In addition, the nominator was asked to provide a story behind the tree or why they felt the tree was something special. Each tree was scored for individual merit, cultural significance and environmental significance. It was decided to run the first award in-house, but the TOTY team may open things up to the public when the completion is next run.

Congratulations Susan! And members, keep your cameras ready for this year’s competition!

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## Wetlands Restoration Project Updates

*By Murray Little*

### Invasive Control

We have had good responses from our funding proposals. We have received \$2,900 from the city of Courtenay, and have signed a 3-year contract with the Comox Valley Regional District (CVRD) for \$10,000 per year. We will meet soon with the contractor and CVRD to work out the target areas and a schedule.

## Volunteers: Air Park and Little River

Frank Hovenden has already had his crew at the Courtenay Airpark to plant several plants which have been grown in his garden and mine, and a couple of shrubs from the Connector which we have been rehabilitating.

The small Little River crew has not been out yet, as our targets are not showing themselves yet. We will wait for the broom to bloom and get the red dead-nettle at the same time.

## Rescue

Well, the North-Courtenay Connector bridge is in place, and most of the plants that we rescued have been relocated by us in 16 locations. The Town of Comox put the 90 which they rescued into Comox parks.



North Courtenay Connector project: before and after.

*Photos: Murray Little*

I have a couple of places that have asked for rescue ferns – if you know of a location needing rescue, please let me know.

## Displays

Last year at the open house of the Mountaineer Avian Rescue Society (MARS) we had a separate 3-leaf panel which described Wetlands Restoration activities as part of the CVN display, and it attracted great interest. I took

a picture of our display, but lost it! Did anyone else get a picture you are willing to share with me?

This year we will try to do the same at the various events to which we have been invited, which include MARS (March 17), Mark Isfeld Secondary School (April 29), and Rosewall hatchery (May 6). Can anyone help out at the latter two events?

We are glad to see the interest in our displays, which is great to spread the CVN message.

## Member Profile

**An occasional series in which we recognize the contributions and learn the personal story of a CVNS member.**

### Betty Brooks

[Editor's Note: This article is drawn largely from the 2006 nomination of Betty for BC Nature's Nature Education Award, which she won, supplemented by information from a recent interview.]

Betty Brooks (born Elizabeth Hatfield in 1931) is a long-time member of CVNS and other nature and conservation organizations and is still active today. An accomplished naturalist, Betty has a wide knowledge of natural history, including birds, mammals, botany, and marine biology, which she generously shares with others. Through the years, Betty has sought to educate both adults and children about nature.

After growing up in Comox, Betty initially pursued studies in music, and for some time worked as a piano teacher. But, from the age of 10, her interest in nature had been sparked by the articles in *Canadian Nature* magazine. Little did she know at that time that she would later marry the son of the famous Comox artist and naturalist Allan Brooks, whose illustrations in the magazine had inspired her to start birdwatching.

It was as an adult then, that she started her biology training, at first with a few courses. For several years she lived in Montreal, working as a laboratory technician in the pharmaceutical industry while accumulating two years' worth of night courses. She subsequently moved on to the University of Victoria where she completed her B.Sc. in zoology and botany in 1965, then worked there as a marine researcher. Subsequently, she completed a Master's degree in marine ecology, with research on burrowing sea cucumbers.

In the 1960s, Betty became the first female park naturalist to work for BC Parks. She worked seasonally

at Miracle Beach Provincial Park and Manning Provincial Park creating educational leaflets, leading nature walks, and presenting evening programs to the public. She also pioneered a junior naturalists' club in Black Creek. It was during this time that she met the younger Allan Brooks (1926-2000), and they subsequently married.

While raising two children on Pender Island in the 1970s, Betty and Allan founded the Pender Island Field Naturalists, and the Pender Island Junior Naturalists Club.

After moving back to the Comox Valley in the 1980s, Betty became involved with several societies that promoted conservation and nature education. As a founding member of the Oyster Bay Park Association, Betty created a bird checklist, developed signage with information on birds and plants, and led numerous field trips into the park.

Betty co-founded the Strathcona Wilderness Institute (SWI), a society whose mandate is to educate the public about Strathcona Provincial Park. Through SWI, Betty led field trips and published a bird checklist for Strathcona Park. In the late 1980s, she produced a comprehensive report on the park under contract from BC Parks. From 1996 to 2000 SWI had a contract from BC Parks to conduct interpretation programs for Buttle Lake campgrounds in Strathcona Park. Betty was the supervisor for these until funding for park interpretation was cut in 2000.



**Betty Brooks and Canada jay in Strathcona Park, 2010.**

*Photo: Krista Kaptein*

Betty produced a detailed report on Mitlenatch Island Provincial Marine Park when BC Parks wanted to

develop infrastructure there, recommending no further disturbance to this island which is home to the largest seabird colony in the Strait of Georgia. She had gained intimate knowledge of Mitlenatch through her stints as a volunteer warden there.

In CVNS, Betty was involved with several natural history inventories, including a significant study of the Trent River estuary. She also started a botany group within the society, which continues today. She contributed to, and edited, the section on marine life for the Nature Viewing Sites book published by CVNS in 1997. Betty often led club field trips and has given many presentations.

With members of the Mitlenatch Field Naturalists Society, Betty conducted a comprehensive survey of Woodhus Slough. Funded in part by the BC Naturalists' Foundation, she developed an educational booklet on the natural history of the slough. The booklet has been widely distributed and has been used by local schools.

In 2006, Betty wrote and published a booklet titled *The Pioneer Birdmen of Comox*. The booklet chronicles the life and contributions of historically significant naturalists and ornithologists, including Allan Brooks Sr., Hamilton Mack Laing, Theed Pearse, and Ronald Stewart.

After these many years of contributions to environmental conservation and education, Betty is still a keen observer of nature, not only from her seaside home at Miracle Beach. Although currently recuperating from a broken arm suffered in a recent fall, she is still contributing. After her chat with the CVNS Newsletter, she and daughter Jocie were off to Oyster Bay for their monthly observations in the Bird Studies Canada water bird survey.



**Betty Brooks at Oyster Bay, March 2018.**

## Short Notes

### CVN Bursary Recipient for 2017

By *Michelle Stewart*



**Emily Lohn receiving bursary from CVN President Jim Boulter, June 2017.** *Photo: Kalyssa Heinrich*

The CVN Bursary Committee chose Emily Lohn as the bursary winner for 2017 for her volunteer commitments and high academic standing at Mark R. Isfeld Secondary School. She is currently enrolled in general sciences at North Island College (Comox Valley campus) in the dual admission program with University of Victoria, and hopes to specialize in marine biology, with a particular interest in the study of sharks.

### Marine and Shoreline Group Formed

By *Kathleen Wilkinson*

Twelve people who had expressed an interest in forming a new Marine and Shoreline subgroup under the CVN umbrella met at the Courtenay public library on Friday, February 2nd. Additional naturalists were unable to attend the meeting but have expressed an interest in joining us.

The meeting was chaired by Jim Boulter and started with introductions and getting to know the background and interests of members of the group. It was tentatively proposed that we would meet once a month to start, preferably at a local marine shoreline location, for a couple of hours on a Saturday afternoon. These meetings could include presentations by knowledgeable naturalists and would focus initially on inventories identifying and determining abundance of marine organisms and shoreline vegetation present (allowing for comparison with previous data, if any), and on processes affecting the shoreline. Another suggestion was to do a cultural

study of First Nations marine highways and indigenous use of shoreline plants, clam gardens, and the like.

Some group outings to locations further afield are a possibility.

We have begun to compile lists of recommended references, potential speakers, and resource people.



**Point Holmes shoreline.** *Photo: Kathleen Wilkinson*

### Membership Secretary Needed

After several years of service as CVN's Membership Secretary, Maris Ratel is retiring from the position, and a new volunteer is needed. Please contact Jim Boulter if you're interested. Maris will help you to transition into this role.

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## From News Archives

### "Money from Broom Pods"

*From the Comox Argus newspaper, Aug. 12, 1943.*

*Contributed by Jim Boulter.*

[Editor's Note: This article is of historical interest only. You might notice some biological confusion in it: "tops" are the young tips of branches, not seed pods.]

When inhabitants of Nob Hill and other places where the broom has spread so fast have cursed the men who first brought the bush to the district they may have been doing the late Mr. John Baird an injustice. For it was Mr. Baird of Cumberland, for so many years government agent of the Comox constituency, who brought the seeds of the broom back from his native Scotland and planted them on Nob Hill. Like a golden wave they have crept down the hill and taken root wherever the wind blew the seeds and they were permitted to take root.

According to an article in the American Druggist, the seed pods of the broom may be valuable. If so a great deal of wealth can be garnered on Vancouver Island where the broom has spread over large tracts of land. This is what The American Druggist says:

"Greater Victoria's humble broom, which covers the fields and hillsides with sunlight yellow in the spring, and which has become a pest to many gardeners and farmers, may turn out to be worth its weight in gold."

An article in the American Druggist this week says the broom — botanically called *Cytisus scoparius* — is an extremely rare drug plant.

Broom grows in comparatively few parts of North America — profusely on Vancouver Island, in Oregon and in some parts of Kentucky.

Botanists in Victoria know very little about the medical value of broom, although it is known [First Nations] and pioneers sometimes ate it and made tea from its leaves.

The American Druggist article says the tops are gathered before flowering and carefully dried. A drug is then extracted from the tops and while some of the drug for U.S. druggists is gathered in Oregon and Kentucky, most of the commercial supplies for North America came, before the war, from Great Britain and southern Europe.

As a drug this plant is called "Broom Top" and sells for 95¢ a pound, which is the trade price. Sparteine sulfate, a chemical derivative, sells for \$4.03 an ounce, trade price.

It is believed early settlers brought the seeds of the broom from Europe, planting them when they arrived a

century ago in the Oregon country and on Vancouver Island. Broom was first discovered many centuries ago on the island of Cythnus, near Greece.

It is quite within the realm of possibility that Vancouver Island would become the centre of a thriving drug industry, for broom grows better here than anywhere else on the continent.

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## Upcoming CVNS Activities

### General Instructions for Field Trips

- All walks are club events and reserved for members only, unless otherwise stated. Typically, one walk each month is open to the public.
- Usually, meet at the Old Church Theatre, 755 Harmston Avenue in Courtenay and consider car-pooling, or meet leaders at the trail head, unless otherwise announced. Arrive at the meeting area 10 minutes prior to the appointed time.
- Wear clothing and footwear suitable for the conditions.
- Bring water and a snack.
- No dogs please.

## Schedule

**This information reflects planning as of our publishing date and is subject to change. Watch for the latest information and additional details in the President's weekly announcements and on the website.**

**Saturday, March 24:** Ripple Rock trail to Seymour Narrows, just north of Campbell River. Meet at Courtenay Country Market on Hwy. 19A at 9:00 am to carpool. The drive to the trail head is about 45 minutes, and the walk around 3 hours return. Pack water and a light lunch as we picnic at the viewpoint before the return trip.

**Saturday, March 31:** (Public walk) Cumberland Marsh, from "Jumbo's cabin" across low coal hills to the Number 1 Japanese Town Site near the Saito House. This is one of our most popular walks, combining both cultural and natural history, and is an easy stroll. Meet at 8:45 am at the Old Church Theatre on Harmston Road to carpool, or at 9:00 am at the trail head (at the entrance to the historic Chinatown on the road to Comox Lake out of Cumberland). Leader: Loys Maingon.

**Saturday, April 7:** South side of Puntledge River from Comox Dam. Easy walk downstream for about 2 km, returning the same way, observing birds and shade-loving plants. Meet at 9:00 am at the Old Church Theatre on Harmston Road to carpool, or about 9:10 am at the trail head at the upper dam. Leader: Loys Maingon.

**Saturday, April 14:** Campbell River Estuary, famous for its Tyee Pool. We will observe the state of restoration of this formerly highly industrialized site. Meet at Courtenay Country Market on Hwy. 19A at 9:00 am to carpool. Leader: Loys Maingon. Possible optional lunch stop after the walk.

**Saturday, April 21:** Helliwell Park, Hornby Island. This large park includes old-growth Douglas fir, a Garry oak meadow, steep shore cliffs, and a near-desert ecosystem. Expect many spring flowers. The trip involves two short ferry rides, so carpooling is advised (be sure to compensate the driver). Meet at 8:30 am in the parking lot across from the ferry terminal at Buckley Bay to arrange carpooling. Usually we return on the 2:00 pm ferry from Hornby.

**Sunday, April 29:** Tsolum Flats. An easy, level walk to observe many spring flowers including both pink and white fawn lilies. Meet at 9:00 am at the Comox Valley Exhibition grounds on Headquarters Road.

**Saturday, May 5:** Allen Lake. About 3.5 km each way, initially through the Cumberland Community Forest.

Meet at 9:00 am at the Old Church Theatre on Harmston Road.

**Saturday, May 12:** Comox Lake Bluffs Ecological Reserve. Trees, moss, and spring flowers in this Mediterranean ecosystem. Meet at 9:00 am at the Old Church Theatre on Harmston Road. Leader: Loys Maingon.

**Sunday, May 20:** Elk Falls Provincial Park. Meet at Courtenay Country Market on Hwy. 19A at 9:00 am or at 9:45 am at the trail head in the lower parking lot (the one near the Nature House).

**Sunday, May 27:** Quadra Island Cape Mudge Petroglyphs. Meet at Courtenay Country Market on Hwy. 19A at 8:00 am to carpool (time subject to change depending on new ferry schedule).

## Reminder for Field Trip Leaders

All field trip participants who are not members must sign our Informed Consent and Assumption of Risk Agreement.

## About the Society

### Website

[comoxvalleynaturalist.bc.ca](http://comoxvalleynaturalist.bc.ca)

### General E-mail Address

[coordinator@comoxvalleynaturalist.bc.ca](mailto:coordinator@comoxvalleynaturalist.bc.ca)

### Mailing Address

Comox Valley Naturalists Society  
Box 3222  
Courtenay BC  
V9N 5N4

### Board of Directors

President: Jim Boulter  
([coordinator@comoxvalleynaturalist.bc.ca](mailto:coordinator@comoxvalleynaturalist.bc.ca))  
Vice-President: David Innes  
Secretary: Gabriel Baubaiges  
Treasurer: Isabella Erni ([TreasurerCVNS@gmail.com](mailto:TreasurerCVNS@gmail.com))  
BC Nature Director: Sharon Niscak  
Project Director: Loys Maingon  
Wetlands Restoration Director: Murray Little

### Group Leaders and Other Volunteers

Membership Secretary: Maris Ratel  
Birding: Herb Gaskill, Steve Ellis ([cvnbirds@gmail.com](mailto:cvnbirds@gmail.com))

Botany: Alison Maingon, Joel Kositsky  
 ([botany@comoxvalleynaturalist.bc.ca](mailto:botany@comoxvalleynaturalist.bc.ca))  
 Photography: Terry Thormin  
 Conservation: Loys Maingon  
 Garry Oak Restoration: Loys Maingon  
 Environmental Heritage and Culture: Gordon Olsen  
 ([coordinator@comoxvalleynaturalist.bc.ca](mailto:coordinator@comoxvalleynaturalist.bc.ca))  
 Swan Count: Ernie Stefanik, Krista Kaptein  
 Comox Valley Conservation Partners liaison: Murray Little  
 Trip Planning: Loys Maingon  
 Bursary: J. Harrison, M. Stewart, K. Wilkinson  
 Website: Jim Boulter, Isabella Erni, Krista Kaptein  
 Facebook: Jillian Jones  
 Newsletter Advertising: Kathie Woodley  
 Newsletter Editors: Sharon Niscak, David Orford

## Constitution and Bylaws

Available in PDF form on this web page:  
<http://comoxvalleynaturalist.bc.ca/about-us/>

## Membership

One adult: \$30; Family: \$40;  
 Junior (12-17): \$10; Student (18-22): \$15

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 CVNS Membership Secretary  
 314 Aitken Street  
 Comox BC, V9M 1N4

Receipts are provided at meetings, or include a self-addressed stamped envelope.

Membership fee is due by January 1. If not paid by March 30, names are removed from the CVNS and BC Nature membership lists. New memberships started after September include the following full calendar year.

Change of address, phone number or e-mail: Please advise the Membership Secretary.

## Meetings

**Monthly general meetings** are held on the 3rd Sunday of the month at 7:00 p.m. in the Florence Filberg Centre, 411 Anderton Avenue, Courtenay.

**June meeting:** Potluck at a member's house.

**No general meeting in July, August, or December.**

**Bird meetings:** First Thursday of the month, 7:00 p.m. at the Filberg Soroptimist Lounge, Courtenay. For information, send e-mail to [cvnbirds@gmail.com](mailto:cvnbirds@gmail.com).

**Botany meetings:** Second Monday of the month at a member's home, 12:00 p.m. An e-mail is sent prior to the meeting to confirm location and topic.

Botany walks (weather permitting) follow the meeting and are also scheduled at other times. To be included on the botany list, send e-mail to [botany@comoxvalleynaturalist.bc.ca](mailto:botany@comoxvalleynaturalist.bc.ca).

## Newsletter

The newsletter is published 3 times per year (March, June, and November). The full-colour version is e-mailed to all members on the e-mail list, and a limited number of printed copies (black and white) is available at the general meetings. If you wish to receive printed copies by Canada Post (within Canada), the fee is \$5.00 per year.

**The newsletter depends on your contributions. Please consider contributing an article or note on any topic of general interest to other members—for example: natural history, conservation activities, trips, unusual sightings, or a book review. You can send your contribution by e-mail to [newsletter@comoxvalleynaturalist.bc.ca](mailto:newsletter@comoxvalleynaturalist.bc.ca).**

**We would appreciate receiving articles by the first day of the publication month.**

**All articles are subject to editing.**

